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EXPERIMENTER BIAS AND THE EFFECTS OF PSYCHOTHERAPY

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EXPERIMENTER BIAS AND THE EFFECTS OF PSYCHOTHERAPY

CHAPTER I

INTRODUCTION

The problem of experimenter bias is one of the oldest problems in science, and science has had to develop complex instrumentation to compensate for the subjectivity inherent in human observational processes. Psychologists have long been aware of this subjectivity and the literature is filled with studies relating perception and motivation. However, there have been no studies of the effects of experimenter bias upon the evaluation of the effectiveness of psychotherapy. This is an important gap in the professional literature, since the reputation of psychotherapy has been damaged by research which has failed to account for experimenter bias.

Eysenck (1952), was among the first (and is still the most often quoted) of those who purportedly demonstrated that psychotherapy had no positive effect. In his study untrained medical students did psychotherapy with clients of a public health clinic and psychotherapy apparently had

no positive effect as compared with control groups who allegedly had experienced spontaneous remission, as reported by Landis (1938) and Denker (Eysenck, 1952). In spite of the use of untrained therapists, clients typically unsuited for psychotherapy, and questionable criteria for spontaneous recovery, Eysenck's study stimulated a stream of comparable studies on the effectiveness of psychotherapy. On the assumption that in other contexts such methodological defects should be obvious, they might be explained as an example of experimenter bias.

The purpose of this study is to show how experimenter bias might have distorted research on the effectiveness of therapy. Obviously this cannot be done on research already reported. For that reason we studied experimenter bias in evaluating the effectiveness of psychotherapy under conditions of denotable criteria of positive therapeutic change.

Research evidence and problems. Evidence for the effectiveness of psychotherapy has not been totally negative. Rogers and his associates have investigated both the process and outcome of psychotherapy and have much positive evidence of the effectiveness of psychotherapy under certain conditions (Rogers & Dymond, 1954). Strupp and Bergin (1969) indicate that "there is much more favorable evidence regarding the efficacy of individual therapy today, particularly with the development of behavioral therapies, than

there was ten years ago." Nevertheless, the preponderance of evidence from published studies is against psychotherapy having positive effects, so much so that Astin (1966) could wonder that reputable psychologists would even practice psychotherapy, labeling his article, "The functional autotomy of psychotherapy."

The complexity which thus far has precluded an empirical answer, as Strupp and Bergin point out, is that psychotherapy "is not a unitary process" but rather is, as Truax and Carkhuff (1967) also indicate, "a heterogeneous collection of psychological conditions and experiences that preclude varying degrees and kinds of change in different patients." In other words, "psychotherapy" is a term which covers a wide variety of techniques, procedures, and experiences, although most forms of psychotherapy probably employ a combination of a human relationship; the communication of meaning in the form of interpretation; an empathic understanding; a striving toward cognitive congruence; at least some recapitulation and integration of early experience; and relatively continuous observation of one's self and an attempt to change one's own behavior on the basis of observing it. It is the task for future research to determine which combination of these dimensions might be optimally conducive to positive psychotherapeutic outcome.

Apparently it is no longer fruitful to ask the

traditional question, "Is psychotherapy effective?" Such a question is so over-simplified as to be untestable. It is more profitable to direct attention to such issues as what kind of therapists and techniques are the best facilitators of what kinds of change, and what kinds of clients are responsive to change. The problem for research is complicated by the fact that different therapists, depending upon their own training, experience, and personality exert different effects upon different kinds of people under different social conditions. Similarly, different patients seem differentially receptive to different forms of therapeutic influence, probably as a function of such variables as verbal capacity, psychological sensitivity, empathy, capacity to observe themselves, and educational background. Unfortunately, traditional research, its methodology borrowed from physics, has excluded individual differences as error variance in spite of the fact that in therapeutic practice, behavior representing positive change in one client may represent deterioration in another. For example, a decrease in sexual activity for a Don Juan may represent positive therapeutic change, while for the more inhibited, an increase might have the same meaning. Furthermore, psychologists have not agreed upon criteria for the measurement of therapeutic change so that outcome measures frequently are derived from specific theoretical positions,

and evidence based upon such measures constitutes an insufficient basis for generalization.

For example, Bergin (1963, 1966) has recommended less indiscriminate grouping of therapists and patients because some therapists work more effectively with certain kinds of patients. A behavior therapist, for example, may be successful with a phobic patient, whereas a more traditionally oriented therapist may be more successful with a patient experiencing global, undefined anxiety. Similarly, Gelder, Marks, & Wolff (1967) have found that desensitization is more effective than psychoanalytically oriented therapy when treating a focal phobic response. This difference did not hold, however, when patients with more severe anxiety were studied, or when a measurement of anxiety as well as depression was used as outcome indices.

It would also be wise if outcome research not measure effectiveness of treatment against questionably derived spontaneous recovery figures. Eysenck (1952), for example, compared psychoanalytical and traditional "recovery rates" with "spontaneous remission recovery rates" and found psychotherapy to be of no effect. Even a cursory look at the spontaneous recovery rate of 72% (Landis, 1938) and how it was derived leads one to question the validity of research using this figure as a criterion. The percentage reflects the average rate of "neurotic" patients discharged

annually from New York state hospitals from 1917 to 1934. Locale and socio-economic status would prohibit generalization of this percentage. Nor can the assumption be made that the patients were exposed to nothing therapeutic while hospitalized. It is not certain that the standards of recovery were equally stringent in the control and experimental groups where experimental and control data were gathered by different experimenters in different parts of the country. Finally, spontaneous recovery rates vary considerably across patient categories; it thus is difficult to know precisely what base line a therapist should have exceeded in order to have demonstrated effectiveness.

In spite of such difficulties with research on the effects of psychotherapy, there seems to be widespread opinion that psychotherapy probably has no consistently positive effect, an opinion which is probably premature in light of research on demand characteristics and experimenter bias.

Effects of the experimenter. One of the most important problems for psychotherapy research, uncontrolled in past research, is the effect of experimenter bias upon an evaluation of the effectiveness of psychotherapy. That experimenter bias might influence such an evaluation is reasonable on the basis of the recent work of Orne and Rosenthal. Orne (1962) has shown in a variety of experiments

that subjects often perform as they believe they are expected to perform, labeling such cues "demand characteristics." For example, if subjects believe that hypnosis implies catalepsy of the dominant hand, they show such catalepsy when hypnotized. If they are not led to believe such catalepsy to be a part of hypnosis, they do not show it when hypnotized (Orne, 1959). In other words, subjects in a research project often respond to the total cues of a situation in an attempt to discern the motives of the experimenter and the nature of the research and, in effect, "give" the experimenter what he "wants." It is important, therefore, that psychological research control for demand characteristics and the bias of the experimenter, and a search of the literature suggests this has not been done in research on the effects of psychotherapy.

The problem of experimenter bias has been studied by Rosenthal (1966). Various "experimenter effects" such as age, sex, etc., are documented by Rosenthal, but most important to the current research is the experimenter effect in which the expectancies, hypotheses, and desires of the experimenter bias the results. In other words, through such factors experimenters may "find" what they expect to find. For example, subjects were asked to rate photos of people on a scale of success or failure that ranged from -10, extreme failure, to +10, extreme success, with intermediate

labeled points. The experimenters were psychology majors who were told that the purpose of the exercise was to see whether they could replicate "well-established" experimental findings as "students in physics labs are expected to do." All experimenters were given identical instructions except that half were told that their subjects would average a +5 rating on the photos, and the other half of the experimenters were told that their subjects would average a -5 rating. All experimenters were told to read the instructions to the subjects and to say nothing else to them other than hello and goodbye. All experimenters expecting success ratings obtained higher ratings than did any experimenter expecting failure ratings. Such nonoverlapping of distributions are rare in behavioral research. Replications of this study again found that experimenters expecting ratings of success obtained ratings of the photos as more successful than did any of the experimenters expecting failure ratings.

In a similar experiment dealing with animal subjects (Rosenthal & Fode, 1963a), experimenters given allegedly "maze-bright" rats and "maze-dull" rats found the "bright" rats to run a maze in less time, though there was no actual initial difference in the two groups of rats. Thus, the expectancies, or biases of the experimenter can influence the results of an experiment.

Although some investigators have failed to demonstrate

the experimenter bias effect (Barber et al., 1969), it must be emphasized that the effect has been demonstrated in most studies (Barber & Silver, 1968a) and is, therefore, deserving of our attention.

It is well known that psychologists, in general, have strong feelings about psychotherapy, pro and con. We hypothesized that such feelings, expectancies, or biases about psychotherapy could act as experimenter effects and influence judgments of the effectiveness of psychotherapy.

To study experimenter bias in measuring the effectiveness of psychotherapy, psychologists hostile toward psychotherapy and both psychologists and psychiatrists friendly toward psychotherapy judged the effectiveness of psychotherapy under controlled conditions of dramatic therapeutic change; i.e., when the patient changed from being psychotic to being an effective, well-functioning man. To maximize experimenter control, two tape recorded interviews were used in which a professional actor portrayed himself as psychotic, and then, ostensibly after 300 hours of psychotherapy, as a normal, healthy, socially effective man. Subjects naïve about the experiment listened to each interview and then judged the effectiveness of psychotherapy on 19 dimensions of personality change and one judgment of overall effectiveness.

CHAPTER II

METHOD

Procedure. Two sound recorded interviews, ostensibly with a psychotic before therapy and a normal, healthy man after therapy were used. A professional actor depicted the role of the same patient at the beginning and the end of psychotherapy. A clinical psychologist conducted the interviews. Scripts of these two tapes are presented in Appendix A.

The actor portrayed a psychotic individual by these criteria: his speech was illogical and incoherent; he was extremely suspicious of the interviewer; he referred to his neighbors as communists, an attitude indicative of a general hostility maintained throughout the interview; he said that he kept a gun for protection; that he knew more mathematics than the professors on the campus; that he wanted his child to grow up and "be able to kill gooks with the best of 'em;" and he was identified with the parent of the opposite sex. The interview was a slightly abbreviated version of the one used by Klein and Temerlin (1969) in a study of sanity

hearings, and in mock sanity hearings conducted in a county court house juries agreed with expert testimony that he was psychotic. He usually was considered a "classic" case of paranoid schizophrenia.

To construct an interview reflecting an effective, stable, happy, perhaps self-actualized person, the same actor portrayed himself in precisely the opposite manner. He was effective and happy with himself and his work; identified with the parent of the same sex; he enjoyed sexual relations (experienced anhedonically by the psychotic); and he was warm, relaxed, and cordial. He was not hostile or suspicious and his speech was rational and coherent. This interview was used by Temerlin and Trousdale (1969) in a study of the effect of expectancy and prestige suggestion on diagnosis, and in that study lay and professional norm groups agreed that he was a mentally healthy man. Furthermore, in another study of sanity hearings, lay jurors agreed with expert testimony that he was "sane" (Klein and Temerlin, 1969). The differences between the interviews were enormous, as an examination of the scripts in Appendix A will indicate.

Subjects listened to both interviews thinking they were recorded before and after psychotherapy, and then judged the effectiveness of psychotherapy on 19 dimensions of personality change and one judgment of overall

effectiveness. These dimensions are presented in Figure 1.

Subjects. In a pilot study an attempt was made to select psychiatrists and psychologists hostile and friendly towards psychotherapy with a questionnaire (Appendix B). This questionnaire ostensibly was developed to survey opinions about clinical and research training, but contained key items designed to reveal attitudes towards psychotherapy. However, the discriminative validity of the questionnaire could not be established, and when it became clear that Ss would not communicate their attitudes on it, it was discarded. For example, a biologically oriented psychiatrist, who used electric shock treatment and did not practice psychotherapy, described himself on the questionnaire as friendly toward psychotherapy. Similarly, experimental psychologists committed to behaviorism, known among other students as hostile toward psychotherapy, described themselves on the questionnaire as friendly towards psychotherapy. It was concluded that the biases of psychiatrists and psychologists were not communicated readily, at least towards psychotherapy and to this experimenter on this questionnaire. Further, it was concluded that the groups would have to be selected with a surreptitious assessment of their attitudes towards psychotherapy and the data collected from them with complete anonymity. Since the experimenter is a clinical psychologist friendly toward

Figure 1

Behavior Dimensions Used To Evaluate
The Effectiveness of Psychotherapy*

-
1. Capacity to work
 2. Capacity to love
 3. Acceptance of self
 4. Level of anxiety
 5. Capacity to enjoy sex
 6. Contact with reality
 7. Capacity to make effective personal decisions
 8. Freedom to experience feelings
 9. Congruence of perceived self and ideal self
 10. Tendency to develop psychosomatic symptoms
 11. Capacity to enter into satisfying relations with others
 12. Personal security
 13. Arrogance
 14. Identification with parent of the same sex
 15. Integration of personality
 16. Tolerance for stress
 17. Hostility
 18. Rationality of thought processes
 19. Guilt
 20. Overall effectiveness
-

*Items were rated a, increased; b, no change; c, decreased.

psychotherapy, it was possible that demand characteristics were operating. Thus, it was decided to employ an experimenter totally unfamiliar with the experiment, and with psychology in general. Thus, the experiment was conducted by a 26 year old, male graduate student in chemistry, who knew nothing about the experiment and little about psychology, though he did understand the necessity of a standard procedure and experimental control in research.

Ss then were defined as positive or negative toward psychotherapy on the basis of discrete but explicit inquiry of their colleagues. In no case was the person from whom information was obtained used as a subject. For example, if psychologist X was asked how psychologist Y felt about psychotherapy, psychologist X was not used as a subject. Psychologist Y, however, was placed into the friendly or hostile group depending upon the report of his colleague, if the colleague could classify his attitude; if his attitude was unknown, he was not used as a subject. The groups thus selected had these characteristics:

Group 1. (Psychiatrists, pro-psychotherapy): Group 1 consisted of 23 psychiatrists affiliated with a large, southwestern state mental hospital and a community mental health center. The approximate years of clinical experience for these Ss ranged from 1 to 20 with a mean of seven. An average of 62% of their time was spent in clinical work

and the remainder in teaching and/or supervision, research, and study. Twenty-one were male and two were female.

Group 2. (Psychologists, pro-psychotherapy): Group 2 consisted of 17 applied, counseling psychologists connected with a large southwestern university and a community mental health center. The approximate years of clinical experience for these Ss ranged from 1 to 10 with a mean of four. An average of 40% of their time was spent in clinical work and the remainder in research, study, and teaching. In the university community from which these data were collected, counseling psychologists tended to be more pro-psychotherapy than did the clinical psychologists. Clinical psychology was conceived more exclusively as a research and teaching discipline, and it was the tendency for therapeutic services to be provided by counseling rather than clinical psychologists. Clinical psychologists thus were not used as Ss because pro-therapy attitudes could not be established as clearly. Eleven were male and six were female.

Group 3. (Psychologists, anti-psychotherapy): Group 3 consisted of 18 psychologists each described by a colleague as hostile toward psychotherapy. They were connected with the same university. The approximate years of professional experience ranged from 1 to 8 with a mean of three; however, their experience in clinical work was quite small, as would be expected, inasmuch as their interests were in

experimental and research directions. The group contained five clinical psychologists, five experimental-personality, four educational, and four general-experimental psychologists with a "bias against psychotherapy" attributed to them by their colleagues. An average of 5% of their time was spent in clinical work and the remainder in research, study, and teaching. Fifteen were male and three were female.

Although any categorization does some violence to idiosyncrasy and there probably were exceptions in each group, in general, Groups 1 and 2 tended to see psychotherapy as respectable professional activity; they felt that with experienced psychotherapists and suitable clients it had positive effects, and they were sympathetic toward psychotherapeutic practice. On the other hand, Group 3 tended to feel that research, rather than psychotherapy, was the most respectable professional activity, particularly for psychologists, and that psychotherapy did not rest upon a sound scientific and quantitative structure. In general, they felt that psychotherapy probably should not be practiced until scientific evidence demonstrated that it consistently helped, and that deterioration effects were not a danger.

Instructions to subjects. Ss were told, "This is a study of the effects of psychotherapy. I should like for you to listen to excerpts from the tape recording of a man

beginning psychotherapy and then excerpts of an interview with the same man after approximately 300 hours of psychotherapy.. After listening to the beginning and later tapes, I then want your clinical judgment about whether or not there has been any change, and the direction of change, if any, along the dimensions listed below. First you will hear the initial interview. Listen to it carefully, and afterwards we will play an interview with the same man at the end of therapy."

CHAPTER III

RESULTS

Each S evaluated the effectiveness of psychotherapy on each of the 20 dimensions indicated in Figure 1. A score was derived for each S by assigning one point for each indication of positive change on each of the first 19 dimensions. Table 1 lists the total number of evaluations of positive change for each S. Positive change was not always marked "increase." For example, a decrease in anxiety, hostility, or guilt was considered an indication of positive change. Ss were then ranked in terms of their score and the Mann-Whitney U was calculated for the three possible comparisons for $n = 23, 17,$ and 18 respectively, as described in Siegel (1956). These results are presented in Table 2. The raw data by groups is presented in Appendix C.

Psychiatrists did not differ significantly from psychologists who were pro-therapy, which was not surprising since both groups were "pro" psychotherapy. On the other hand, significant differences were found in the remaining comparisons. Psychiatrists and pro-therapy psychologists both differed from the anti-therapy psychologists with the

TABLE 1

TOTAL EVALUATIONS OF POSITIVE CHANGE BY SUBJECT*

	<u>Group 1</u> (n=23)	<u>Group 2</u> (n=17)	<u>Group 3</u> (n=18)
Ss			
1.	13	19	15
2.	11	19	1
3.	19	19	14
4.	19	17	19
5.	19	17	17
6.	18	18	11
7.	0	19	8
8.	19	15	9
9.	19	18	4
10.	6	15	0
11.	17	16	15
12.	17	16	16
13.	12	10	10
14.	18	14	0
15.	13	15	18
16.	19	17	16
17.	16	16	19
18.	15		14
19.	15		
20.	12		
21.	13		
22.	17		
23.	5		

*Since there were 19 dimensions of personality change, this is the highest number of positive judgments a S could make.

TABLE 2
EVALUATIONS OF THERAPEUTIC EFFECTIVENESS

Comparison	U	Z	Significance
Psychiatrists (N=23) vs. Pro-therapy Psychologists (N=17)	162	.91	$p > .05$
Pro-Therapy Psychologists (N=17 vs. Anti-Therapy Psychologists (N=18)	76	- *	$p < .01$
Psychiatrists vs. Anti-Therapy Psychologists	268	1.60	$p < .05$

*No Z calculated because $n_1 \leq 20$ and n_2 between 9 and 20 (Siegel, 1956, p. 119).

largest difference occurring between the two groups of psychologists. In other words, psychiatrists and pro-therapy psychologists saw significantly more positive therapeutic change between the two tapes than did the anti-therapy psychologists. These results acquire additional meaning since positive therapeutic change was dramatically observable in the interviews. Nevertheless, there were two Ss in Group 1 who "found" a "deterioration" effect on four dimensions; three Ss in Group 2 found a deterioration effect on four dimensions; and two Ss in Group 3 judged therapy to have had a negative effect on three dimensions. The groups did not differ significantly in the number of Ss who perceived a deterioration effect. It would appear, therefore, that "deterioration" during psychotherapy, as reported in several studies, could be a function of the evaluator as well as the actual circumstances, or some unknown interaction effect.

An item analysis was conducted by dividing items into two groups: those from which therapeutic change had to be inferred, and those in which therapeutic change was explicit and could be observed without inference. For example, "integration of personality" increasing or decreasing during therapy can be known only through inference, while identification with the parent of the opposite or same sex was explicitly stated in the script. Figure 2 lists those

items that can be known only through inference and those about which explicit statements were made by the patient. Evaluations of positive change made on these items were compared by means of a chi square analysis, which yielded a x^2 of .57, $df = 2$, $P = .75$, indicating no differences between responses on these two kinds of items. In other words, attitudes toward therapy--pro or con--were systematically distributed throughout the 19 dimensions, suggesting that they were relatively independent of the subject matter of the particular item.

A similar x^2 analysis comparing the explicit versus the inferred items on which an evaluation of "no change" was made yielded a x^2 of 11.12, $df = 2$, which is significant at the .01 level. An inspection of Table 3 indicates that anti-therapy psychologists more frequently judged there to have been no change in the patient when the evaluation was made on an inferential dimension rather than on an explicit one. There was no significant difference between groups on these same items when an evaluation of "decrease" was made. Table 3 presents these chi square comparisons.

An additional ordering of the data by items is presented in Appendix D. This appendix lists the 19 dimensions and the number of Ss making evaluations of "increase," "no change," or "decrease" on each dimension. It also includes an additional question on which the subjects were

Figure 2

Explicit Versus Inferred Items

Explicit

- 1. Capacity to work
- 2. Capacity to love
- 5. Capacity to enjoy sex
- 6. Contact with reality
- 14. Identification with parent of same sex
- 18. Rationality of thought processes

Inferred

- 3. Acceptance of self
 - 7. Capacity to make effective personal decisions
 - 9. Congruence of perceived self and ideal self
 - 15. Integration of personality
 - 16. Tolerance for stress
 - 19. Guilt
-

TABLE 3
COMPARISONS OF INFERENTIAL AND EXPLICIT ITEMS

	χ^2	df	P
Inferential vs. Explicit: Increased Dimensions	.57	2	.75
Inferential vs. Explicit: No Change Dimensions	11.12	2	.01
Inferential vs. Explicit: Decreased Dimensions	.04	2	.98

asked to make an overall evaluation of change or lack of it. A chi square analysis (Walker and Lev, 1953) was performed on each dimension for all three possible comparisons: psychiatrists versus pro-therapy psychologists, psychiatrists versus anti-therapy psychologists, and pro-therapy psychologists versus anti-therapy psychologists. Table 4 indicates the significant chi square, degree of freedom, and probability level by dimension.

When comparing the psychiatrists and the pro-therapy psychologists, only one significant difference was found and this was on item 11, capacity to enter into satisfying relations with others. On no other dimension was there a significant difference between these two groups. This is consistent with the Mann-Whitney U which also yielded no overall significant difference between the psychiatrists and the pro-therapy psychologists, and is not surprising since these two groups had similar attitudes, and no difference had been predicted.

On the other hand, when comparing the psychiatrists with the anti-therapy psychologists there were five dimensions on which a significant difference was found. These dimensions were: #6, contact with reality; #12, personal security; #16, tolerance for stress; #18, rationality of thought processes; and #20, overall effect of psychotherapy. When comparing these same two groups across all variables,

TABLE 4

COMPARISON OF GROUPS BY EVALUATIVE DIMENSION
ON WHICH SIGNIFICANT CHANGE WAS JUDGED*

Psychiatrists vs. Pro-Therapy Psychologists			Psychiatrists vs. Anti-Therapy Psychologists			Pro-Therapy Psychiatrists vs. Anti-Therapy Psychologists		
<u>x²</u>	<u>df</u>	<u>P</u>	<u>x²</u>	<u>df</u>	<u>P</u>	<u>x²</u>	<u>df</u>	<u>P</u>
1.								
2.								
3.								
4.						6.84	1	.0089
5.								
6.			4.96	1	.0246	8.34	1	.0043
7.								
8.								
9.								
10.								
11.	4.22	1				8.26	1	.0044
12.			4.96	1	.0246	8.34	1	.0043
13.						4.12	1	.0401
14.								
15.								
16.			8.78	1	.0035	8.34	1	.0043
17.								
18.			5.07	1	.0230	6.81	1	.0091
19.						5.38	1	.0194
20.			3.70	1	.0516			

*The first 19 dimensions are those listed in Figure 1, on which Ss judged change with therapy. Where no values are given, the item did not indicate change.

the Mann-Whitney U yielded a difference in evaluation of positive change at the .05 level of significance.

In the final comparison, pro-therapy psychologists and anti-therapy psychologists, there were eight dimensions on which significant differences occurred. As an examination of Table 4 indicates, these dimensions were: #4, level of anxiety; #6, contact with reality; #11, capacity to enter into satisfying relations with others; #12, personal security; #13, arrogance; #16, tolerance for stress; #18, rationality of thought processes; and #19, guilt. When comparing these two groups, the Mann-Whitney U yielded a difference at the .01 level of significance. It would appear that the Mann-Whitney comparison by subjects is consistent with the chi square analysis by variable. However, it is noted that Groups 2 and 3 did not differ on the last question, that of the overall effect of psychotherapy, though Group 3 did differ from the pro-therapy psychologists in the Mann-Whitney analysis, possibly meaning that the kind of bias studied is not readily communicated by global questions, as was the case with the questionnaire on "bias."

CHAPTER IV

DISCUSSION

The results suggest that experimenter bias with regard to psychotherapy may lead one to "find" an absence of therapeutic change even under conditions designed to maximize positive personality change. This does not prove, of course, that the studies already in the literature have been biased by the same kinds of dynamics. However, it does seem possible that this could have been the case. Considering the possibility of such bias and the complexities of psychotherapy research, it is probably premature to conclude very much about psychotherapy on the basis of published research. Particularly does this seem to be the case since psychotherapy is not a unitary variable, and therapist-client diads are not interchangeable. Certainly it is scientifically premature to conclude that psychotherapy has no positive effects. Such a conclusion should not be made until the ineffectiveness of psychotherapy is demonstrated under the following conditions: that is, where no change can be shown to occur in the psychotherapy of experienced psychotherapists working with clients of their own selection who

have those personality characteristics most likely to result in change.

Some qualifications need to be considered, however, for any interpretation of these data. For example, the three groups contained an unequal number of female subjects with the greater number of females occurring in Group 2, the pro-therapy group. Some research suggests that female subjects are more "docile" and tend to give the experimenter the results that he wants more than do male subjects, though this may not hold with female Ss possessing the level of training characteristic of the Ss used in this research. Nevertheless, the greater number of females in Group 2 presents a possible limitation of the results. On the other hand, Group 2 differed from Group 3 at the .01 level, so that had the group been all male it probably would not have lowered significance below the .05 level.

It should also be reiterated that Group 2 consisted of counseling psychologists rather than clinical psychologists, and that these results may not be generalized to clinical psychologists where clinical psychology is defined as more "service-oriented." As stated earlier, however, at the particular university from which most of the data was obtained it was typical that counseling psychologists provided clinical services and clinical psychologists were almost exclusively researchers.

One further qualification when interpreting the data might be that the groups did not have the same contact with psychotherapy prior to the experiment. For example, Group 3 contained psychologists who had had very little actual experience with psychotherapy, an average of only 5% of their time being spent in clinical work; whereas, Groups 1 and 2 spent an average of 62% and 40% of their time in clinical work. One would not expect, however, that a group of Ss hostile towards psychotherapy would have had as much actual contact with psychotherapy as practicing clinicians, nonetheless, differences between groups could be in part a result of differences in experience, rather than differences in bias. In light of this the results must be accepted with caution. It is suggested that a replication of this study add one additional group of totally inexperienced Ss, perhaps from a field such as physics or art, and compare their scores with those of pro and anti-therapy psychologists. It is likely that a psychologically naïve group's evaluation of the same data would be closer to the evaluation of the pro-therapy group than to the anti-therapy group, which in this study meant being closer perceptually to the stimulus material.

CHAPTER V

SUMMARY

The purpose of this research was to investigate experimenter bias as it might affect an evaluation of the effectiveness of psychotherapy. Three groups of Ss were used: Group 1 consisted of psychiatrists; Group 2 consisted of pro-therapy psychologists; and Group 3 consisted of anti-therapy psychologists. The Ss listened to two audio taped interviews with the same patient, ostensibly at the beginning and end of psychotherapy. The tapes were made by a professional actor portraying a psychotic individual and, later, the same patient portrayed as a healthy, emotionally mature man. A clinical psychologist served as the interviewer. After listening to the tapes, in which there were denotable criteria of positive therapeutic change, the Ss evaluated the effectiveness of psychotherapy on 19 dimensions of personality change and one judgment of overall effectiveness, such as capacity to love, capacity to work, tolerance for stress, identification with parent of same sex, and contact with reality.

Psychiatrists and pro-therapy psychologists did not

differ significantly in their evaluation of therapeutic change, but both psychiatrists and pro-therapy psychologists differed from anti-therapy psychologists in the evaluation of therapeutic change, with the largest difference occurring between the two groups of psychologists. That is to say that the anti-therapy psychologists did not see as much therapeutic change between the two tapes as did the psychiatrists and pro-therapy psychologists.

These results would indicate that experimenter bias can alter an evaluation of the effectiveness of psychotherapy even when therapeutic change is explicitly built into psychotherapy.

Some qualifications to the above interpretation of the data might include a greater number of female Ss in Group 2 than in Groups 1 and 3, though a significant difference was also found between Groups 1 and 3 in which the sex of Ss was more nearly equal. Broad generalization of the data might also be limited, inasmuch as Group 2, the pro-therapy group, consisted of counseling rather than clinical psychologists. One further qualification might include the fact that Group 3, the anti-therapy group, was less experienced with psychotherapy than was Group 1 or 2.

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APPENDIX A. SCRIPTS OF TAPES

Transcript of Interview with Psychotic Man Before Therapy

I = interviewer

C = client

I 1: Good morning, my name is Dr. Temerlin. What can I do for you?

C 1: Well, somebody told me to come here, so I'm here. I mean, they said I ought to come . . .

I 2: Oh, tell me about it.

C 2: You know, help's a funny thing. How can you, uh, how can you even talk about helping another person. . . . but somebody told me I should be here, and (sigh) life's been hard.

I 3: You feel you might need some kind of help.

C 3: (laugh) Well, it's not getting any easier--what do you want to know?

I 4: Well, you're here, apparently for some reason, why don't you just tell me all about yourself.

C 4: I don't know what you mean by that. Well, I was born on a farm in Iowa. My parents were very good people and they reared a good family--are you always like this? Why don't you just ask me some questions? I'll tell you anything you want to know--just ask me some questions.

I 5: Well, I don't know what to ask you. Just tell me more about yourself.

C 5: They're dead (flatly).

I 6: They?

C 6: They're dead. You know, they were fine--they're dead now. They were farmers--they farmed--good land--raised crops. Yah, I remember--I remember when my father died, my mother carried on like a banshee for three weeks, she wouldn't stop crying . . . and then she never mentioned his name again. She was a good woman. You know, whenever I think about that my head starts to ache--my head's

started to ache now, as a matter of fact. Let's talk about something else. . . . When I think about that whole business of my father dying and my mother being a banshee I . . . (pause).

I 7: You have strong feelings about . . .

C 7: No, no, it's over and done with! I'd rather talk about--now--about my family--now. My family now consists of my wife and my son and myself . . . my wife is a tall, skinny woman. I leave most of the rearing to my wife in some ways. She controls the boy but I don't want her trying to control me. . . . She's going to spoil that kid--she's going to spoil the boy.

I 8: The boy.

C 8: She's going to spoil him by . . . she's going to spoil that kid. You know, he's not a bad boy I suppose . . . but . . . she likes to keep him weak and he's going to need to be strong in this world . . . this world's a hard place and he's going to need to be strong . . . and she fusses over him and she worries about this and she worries about that. I say what that boy needs is more discipline.

I 9: More discipline?

C 9: He needs to be punished--he needs to be beaten when he does something wrong, you know. Now, I say, be kind to a child . . . when he's doing the right thing, but, if they're doing the wrong thing they need to learn it. And this kid's going to grow up to be a sissy . . . he's going to grow up to be a sissy. I can see it coming. But she's mighty hard to control, that woman, and so is he . . . he's getting hard to control just like her--he's getting just like she is.

I 10: How's that?

C 10: Now mind, I love him! But he shouldn't be like this.

I 11: Like this? What do you mean?

C 11: What do you mean? Well, it's hard to tolerate. (long pause) I, I do love the boy . . . after all, he's my son. Now, I don't want you getting any

wrong ideas . . . we all get along fine. You know, when that boy grows up he's going to go to war . . . we're in war now, and in ten years he's going to be drafted, and he's going to be on the front lines, and if he's a sissy he'll get killed right away. You know, Viet Nam could still be going on ten years from now, and if he goes to Viet Nam I want him to be able to kill gooks with the best of them. Now, my wife doesn't believe in war. You know how women are--good woman!--fine woman!--church going woman! I don't think she's ever had a wicked thought in her life. She's very active in the church.

I 12: She's the religious one in the family?

C 12: Well, you know, I'm a mathematician. I like to think of God as a formula. Search for the truth--and that's what I'm after is truth. I taught myself math . . . I'm a selfmade man and I use it in my business . . . I know more math than most of those professors on campus . . . and I understand it, and I enjoy it. I can get off into math and it's just a--a world of its own. It's got its own symmetry and its own beauty, its own orderly procedures and processes . . . that's my religion.

I 13: You are a religious man then?

C 13: I see in a particular sense God becoming more alive in mathematics. My conviction is that we can understand God in conjunction with the reality of . . . mathematics we can then understand in a sense the whole tradition in which we live . . . we can really only move into the future by negating and transcending the past. Considering what we are facing we have no ethical principles to guide us. And all . . . we have had, must necessarily be negated. I have observed a number of things about the universe--it is a universe and in it is a certain measure of order more or less predictable by science. We are coming to know a whole new reality of man, world, time, space . . . we are moving into a form of ions in which these old values are becoming reversed. Now we are coming to know a world which has lost all in relation to its dependency . . . on creation. World becomes all, world becomes absolute--we can also say this about man, history, time, life, energy . . .

My parents believed in God--they were good people. Now mind you, they didn't believe in God in a truth-seeking kind of way but as a personal God, a personal savior, with--ah--you know--the long beard and all that . . . and that God is dead.

My mother prayed a lot, yah, mother prayed an awful lot. She always prayed for us and it made me feel terrible--like I had really done something awful. My father was not there very much . . . but my mother was always there--good woman--she was very kind in her heart. She was always doing things for other people--things she thought they needed, like she would take their children to Sunday School. (pause) She was a tough, old, farm woman, though, and she didn't have too much . . . time . . . for nonsense. And it's a good thing too, you know, I would have grown up a sissy, like the boy's going to do. But, you know, in her heart she was a good woman. She worked all the time, cleaning and washing--she said she could never stay ahead of the dirt--and she beat me when I needed to be beaten--she did it for my own good and she was right.

- I 14: You've been telling me about your mother, could you tell me something about your father? I didn't quite understand what you said about him earlier.
- C 14: Well, my mother didn't pay much attention to my father. He wasn't there much, you know, he was out in the fields all day and then after supper he would find some excuse to go to town . . . probably to drink beer with his cronies. Now my older brother left home--he said he hated it there. He said he just hated it bad.
- I 15: Hated it?
- C 15: (sigh) . . . I liked my mother. She was a strong woman and I always wanted to be strong like her. I always said when I grew up I was going to be just like my mother. She never took any nonsense off anybody. My father was . . . (long pause), my father, well, my father was a clam man--he never got excited about anything. But you know, even so, he was a weak man. He was nice enough, I suppose, uh, he was a good man and he meant well, but he couldn't ever keep control of his sons or else that oldest son of his wouldn't have run away from home like he did . . .

- I 16: There was a lack of authority in the home?
- C 16: He ran away from home and my father didn't go after him, no sir, if that had been me I would have gone after him and I would have pulled him back and I would have beat the hell out of him. When I left home the old man got teary-eyed and I swore I'd never go back . . . but I did. I can't stand to see a man cry, but I went back . . . to see my mother. I went back for his funeral . . . I went back when he died. She was a good woman. . . . He died and she just carried on, but she was a good woman, and she was a strong woman. He always called her "mother." They never fought . . . never heard them argue. Sometimes, when I was a kid I used to wonder about that, when he would come home late and I'd hear mother get up to let him in, you know . . . but that was a long time ago . . . that's water under the bridge. You'd rather hear about me, I suppose.
- I 17: I suppose so. What about you? What about you and your wife?
- C 17: Yah, I figured you was going to get around to that. There are some things I just keep private, but I'll tell you anything you want to know. All you psychiatrists have dirty minds anyway, don't you? You always want to talk about sex.
- I 18: Sex? I . . .
- C 18: Yah, you're always prying into other people's business. You know, lots of people pry into other people's business and they ought to keep out of it. You know, I have some neighbors and they pry and they pry and they pry, and they watch. They watch everything I do.
- I 19: Have I been watching, prying?
- C 19: Well, I'm not doing anything. But you know, they watch me, and it's because they think that I think they are communists . . . and they are too.
- I 20: They are?
- C 20: I don't care too much if they just peek out from behind their blinds. (sigh) I know what they

think . . . but, you know, you don't have to pay too much attention to what people think. One of these neighbors is pretty funny--he keeps talking about, about communists around me. Came over the other day--I was just mowing my lawn--Sunday morning--and wanted to know what I thought about communists. I didn't tell him a thing. Communists are dirty rotten people.

I 21: You feel you've always got to be pretty careful. You've . . .

C 21: You've got to be careful, you've got to protect yourself. These people are dangerous, they really are more dangerous than most people realize, and you have every right to protect yourself . . . you know, the police don't care what happens until afterwards, and even then they don't care about the average Joe Blow, and I keep a gun in my closet so that if they do anything I can protect myself . . . now, mind you, I wouldn't use it unless I really had to but everyone has a right to protect himself from those kind of people.

I 22: Sounds like you're afraid.

C 22: You can't really trust anybody . . . you know, communists are so clever about using other people. They convert some but they even use those they don't convert . . . like liberals, although I think more of them are communists than people realize. Communism under Stalin was one thing, under Kruschev was another, and now it is yet another. It's hard, in my opinion, and I'm no expert, it's hard for the average man to realize how dangerous communism is, under any guise. Communism is the same thing as the French revolution when the uneducated realized with their power that they could kill and destroy . . . liberty, equality, fraternity (sarcastically) . . . 1795 . . . July 14 . . . when mobs took over and wrecked France . . . it was horrible . . . and because every move in one direction has a move in the other direction . . . as the communist state exists today it is patterned on any army . . . it is part of the planned policy . . . the government . . . that's the way they work . . . they have . . . and then you have a blood bath. If you don't conform you die or go to the salt mines . . . they have to, to,

to win . . . they have to rule by fear, oh! the well-known knock at the door . . . at two o'clock in the morning. They drag you out and you disappear, period. They have one weapon, it's fear, and they use it . . . dreadful thing! When the state controls you, you can call it any name you want, socialism--communism--it's all the same thing, and we are going to have to control them and purge our country of them.

I 23: Oh?

C 23: It's all part of the planned policy . . . to undermine the government and eventually destroy the government. That's the way they work . . . they have . . . (pause). When the Bolshevicks took control, and one of them was Trotsky who fled for his life and later was assassinated in Mexico. Korinsky, Korensky, whatever his name was, left--had to--and then our government, among one or two others, thought we should do something about it and made a miserable attempt--failed, and communism took over and then you had a blood bath in Russia. Stalin purged the Russian army, and I mean he purged it, he killed them . . . he had to, to win. The secret police were reorganized four times. The purge of 1937 was something. He purged the Red army--oh, he took those officers, by the thousands, and got rid of them! Here the best we do is move the man out of the army (sneering tone) . . . we don't kill them . . . but there, they, they just kill them. One Russian general defected to the Germans and raised a million, one million Russian soldiers who didn't like communism, think of it, one million . . . so the Russians counter-attacked and lost fifteen million men and . . . their brutality and everything all along the way--it was rough. They rule by force. The communists, in their invasion of Poland, with the help and aid of Germany, killed ten thousand Polish officers who were prisoners . . . and buried them. I'm talking more about the war than I am about Communism, but it's all the same thing, the way they work. They want to win, to rule . . .

I 24: Let me, if you will, interrupt you for a moment. I'm not really sure how I might help you, or if you want help, but we're about out of time for today and I don't think we're anywhere near finished. Let me suggest that we make another appointment and continue to talk about this tomorrow.

Transcript of Interview with Normal, Healthy Man

I = interviewer

C = client

C 1: As far as I know I've only got one life to live and it may be that psychotherapy could help me get more out of life. I, I want to live life to the fullest and experience as much as I can. I want to have as good a time as I possibly can. I was raised a Christian, you know, but I'm not really a Christian. I don't believe in life after death and a Supreme Being any more. I think that I should just get as much out of this life as I can. Actually, I'm getting quite a bit out of it, I think. I enjoy my work and I think I'm pretty good at it. I can get off into math and, you know, it's just a world of its own. It's got its own symmetry and its own beauty, its own orderly procedures and processes and I'm quite happy with it. I don't mean to imply by this now that I don't get along with people too, because I get along very well with people--don't really have any trouble with them. I, I suppose I'm somewhat atypical as a math major. I was raised on a farm, you know, and a lot of the other graduate students over there come from families where their parents were professors or scientists of one sort or another. Actually, I guess I get along real well with the graduate students. For that matter, with most people. My wife and I are, are very happy together. We, we do quarrel sometimes though.

I 2: What do you quarrel about?

C 2: Well, we quarrel--I wouldn't say a lot but we fight sometimes. I suspect everybody fights sometimes. A lot of times I have doubts about whether or not we're raising our son right. We've been married about eight, I guess about seven years and have this five year old boy, you know, and a lot of little things come up in the process of raising a child. I'm sure you know about this better than I do. Well, you want to do one thing, your wife wants to do another. You really don't know what's best for the child. We're raising him as well, as good as we can--not like I was raised or not like my wife was raised.

- I 3: You're trying to do as well by him as you can.
- C 3: Yeah. We're as modern and progressive as we can. We've read Spock, and we love our child. We give him the best of medical care and all that but, oh, I don't know, sometimes when I come home I'm all preoccupied with studying for general exams or some aspect of mathematics. I'm probably not, I probably don't pay as much attention as I ought to, but you can't really say there's anything the matter with that. I mean, aren't most people that way?
- I 4: Are they?
- C 4: Well, my wife, she loves him. We don't punish him at all. Sometimes, well, my wife doesn't punish him either. She found him masturbating the other day and she didn't say anything about it. He was just sitting on the couch in the living room playing with himself and she told him, she told him that he shouldn't do that, but she didn't punish him or anything like that. She probably figured, well, he didn't know what he was doing. He's really too young to know anything about sex and so on, so she told him that this was private and he ought to do it in the bathroom but not in the living room--particularly when there's anybody about. But, I, I thought she did all right on that. She didn't tell him she was going to cut it off or anything like, you know, my mother would have. We do quarrel though over raising the child about one thing though.
- I 5: What's that?
- C 5: Well, my wife goes to the Episcopal Church and she wants to take him. You know, I was raised in the Church of Christ--you know what that's like--and I had religion crammed into me when I was very, very young. Now, I don't want to force my child to go to the Episcopal, or go to any church. He's only 5½ or 6, and I think that's too early really to start a kid in Sunday School or church. He, he's not old enough to make up his own mind. I'm a scientist myself and I think you should never indoctrinate a child in religious dogma until he's old enough to examine the evidence for himself. Well, anyway, she wants to take him to church with

her and I don't care whether she goes to church or not--she can believe anything she damn well wants to--that's her own business. I just, I wouldn't go myself and I think it's sheer hypocrisy that she wants to go. I'd rather sleep late on Sunday mornings frankly, and I'd really rather she stay in bed with me and I tell her this but she's just all the time off to church and she wants to take him. Well, or go to any church. He's only 5½ or 6, I think that's too early really to start a kid in Sunday School or church. He, he's not old enough to make up his own mind. I, I'm a scientist myself and I think you should never indoctrinate a child in religious dogma until he's old enough to examine the evidence for himself. Well, anyway, she wants to take him to church with her and I don't care whether she goes to church or not--she can believe anything she damn well wants to. That's her own business. I just, I wouldn't go myself and I think it's sheer hypocrisy that she wants me to go. I'd rather sleep late on Sunday mornings frankly, and I'd really rather she stay in bed with me and I tell her this but she's just all the time off to church and she wants to take him. Well, we quarrel about this and it's a bone of contention between us and we, we differ on the Viet Nam situation too.

I 6: I know what you mean.

C 6: Well, I'm really worried about what we're doing in Viet Nam. It, it bothers me. I, I don't mean because I'm involved. I've got a deferment because I'm in graduate school, in mathematics--well, I'm a veteran, anyway. The issue is, I just don't think we ought to be over there in the first place and I sure don't think we ought to be fighting a war that we can't win and you know, war never solves any problems anyway, but my wife thinks we ought to be there and we ought to use more force and perhaps even use the A Bomb, you know and she thinks that I'm just a soft-headed humanitarian about this, but I've always been against violence in any form. As a matter of fact I don't even punish my child if there's any possible way to get around it, you know because I think violence is bad--it never leads to anything except more violence and she probably considers that this is weakness.

- I 7: And she probably thinks this is weakness and would just incite them to more violence or something like that.
- C 7: Yeh, I don't want you to think I'm crazy on the subject of violence or anything like that. I've seen my share of it and I've had my share of it. In fact, that's probably what got me interested in reading in psychology and the social sciences anyway and so on. I, I had nothing else to do when I was in the Army except, ah, sit around the PX and read.
- I 8: A little earlier, you said you were from a farm background--that this is atypical for a math major and it's my experience too. Was your wife from a farm too?
- C 8: Well, I was born on a farm and I was certainly raised on a farm but I was always a very atypical person. I, I think my parents were very atypical people to be farmers. They were actually farmers. My, my father owned a large wheat farm in Iowa and he made his living off of it but he inherited the farm originally from his mother. She was the strong one in that family. She, she really worked it up into a paying operation. My father originally was an engineer but this was during the Depression and he wasn't making a very good living in engineering so he decided he'd better give it up. And, ah, he came to the farm to live there and, and be self-supporting. But as far as that goes, he continued with his reading and his engineering and he was always building things and, ah, making gimmicks on the farm. Well, for instance, I remember--yeah, we had a, we had an automatic baler before anybody, any people in the same county and he went out and fixed up an automatic milking machine. He made it himself, just, oh, he had all kinds of little automated gimmicks (laughter) and, you know, this was back in the days when most farms were just a matter of hard work and a strong back but, ah, I think our farm was far more modern than any of the others in the county.
- I was always a lot closer to my father than I was to Mother. You know, I liked to, like all kids I guess, I liked to go out on the tractor with him and when he wasn't farming he was always taking me hunting or fishing. I remember we used to go

pheasant hunting; when I was just 6 or 7 he got me a .22, my first rifle, then a couple of years later I got a shotgun. But, I suppose he was as good a dad as anybody could ask for. I, I know when he died, when he died about 4 years ago--I was really shook up. I remember I was very depressed over that, very unhappy. I'd been closer to him than anyone I guess. I really loved him and I remember for several weeks there I couldn't work or sleep or do anything--couldn't even read very well at all. I, I was really shook up. I stayed at home for a while, helped my mother with the farm and eventually she got herself some people to live with her and she's still living on the farm, you know. She doesn't really do that much of the work herself but keeps books I think.

- I 9: I may be putting words in your mouth, but if so you can spit them out, but you seem to feel much differently about her than you did your father.
- C 9: Well, I guess I was always closer to my father than I was to my mother. She, she's all right in her way. I, I think she loved me. I think--we had a big family, you know, I had three brothers and two sisters. It, it was a big family. She was always taking care of them and I, I always kinda felt that she, I thought she picked at my father a little bit. Oh, she'd always want him to wash up before dinner. He didn't think of anything like that. He'd come in from the field and he'd have dirt on his hands and sit right down and she'd say, "Now, Daddy, you're setting a bad example." She always called him "Daddy." She'd say, "You're setting a bad example for the children--go on in the bathroom and wash your hands," just like make him go in the other room and wash his hands. I always felt about --I was a kid--I felt about it, hell, my hands are going to get dirty again anyway.
- I 10: Well, she did seem a lot different. She was a different kind of person than he was.
- C 10: Well, I mean, well, my dad, even though he was a farmer, you know--he always, well he liked to talk science and show me things like how to fix cars and those things, ah, on the farm. We were always tinkering with things. I could always talk to him, you know, but I couldn't with her so very well.

She seemed to be mostly interested in taking care of the kids, cooking and baking and (laughter) going to country socials--she, you've heard this about mother, she always had to enter her jams or her relish in some kind of contest or was always making a cake for the fair.

I 11: (Laughter.)

C 11: Well, I wanted to sit around and read or talk to my dad, or go hunting or fishing or, I wasn't really interested. And besides, Mother was kind of nuts--well, maybe I shouldn't say she was nuts, but she was at least she was pretty fanatical.

I 12: And I bet I know on what subject--sex or religion or both.

C 12: Both, a combination. She was pretty fanatic, you know, she was always taking me to Sunday school--I had this religion forced down me and telling me about my "private parts" and how these were "private" and she would always say, "You know the Lord gave us these to reproduce our own kind, but for heaven's sakes, don't touch them," and didn't want us to have any dirty thoughts. I, I remember the first time she, ah, she found me playing with my sex, ah, playing with myself--it was really something. I really didn't, I didn't know a thing about sex or what it was or anything. I remember one day, I came out, just as I was leaving the bathroom, I felt this funny sensation--it was actually kind of good, you know, it was kind of funny--I don't remember now exactly how it felt but so without thinking about it I was just rubbing myself as I came out of the bathroom instead of putting my penis back in my pants and Mother saw this and she, boy, she must have thought I was running amuck or something. (Laughter.)

I 13: (Laughter.)

C 13: She got this real funny expression on her face and said, "What are you doing?" Well, I, hell, I didn't even know what to tell her. It was so new, but I, I got the idea all right that I should never do anything like that. And she told me that she never wanted to see my touching my "privates" again. I remember, I was scared. I, I really didn't know

what I was doing wrong but, I knew from her expression or something, I'd really done something wrong. I was real scared for a long time.

I 14: What happened?

C 14: I don't know what happened. Nothing happened, I guess. I probably just forgot about sex for a while. I don't think I ever had much to do with it probably then or maybe until I was pretty far along in high school or junior high or something like that. When I started, actually started having dates and going with girls I was still scared, I really was. I got so, well, there was this one girl I remember in junior high school. I thought she was, boy, she was the sweetest, prettiest thing I ever saw. She was just too much and I remember I got real interested in her and I really liked her and I was so scared even to ask her over to my house or take her on a date or something. Well, she was the first one I had a date with I guess. I didn't ask her for a long time, you know because I was afraid. I just knew she'd say no. Well, finally I, well, I finally just screwed up my courage I guess and I took her out, I took her for a date and we went together--I guess we went steady, I guess you'd call it in those days, for a long time and that was, really that was my first experience with sex. I remember, I was very nervous and I was really anxious about it. She was too, and, oh, I don't remember now but we were probably too scared--so scared we couldn't really enjoy it.

I 15: Do you--I wonder if you still feel that way.

C 15: What way?

I 16: So anxious about sex that you can't enjoy it.

C 16: Oh, no, no. This was just in junior high school. She and I started, just started having intercourse in junior high school. I was pretty anxious for a while. Oh, but it gradually got to where it was much more fun and she and I went together for two or three years, ah, having intercourse all through junior high and high school. Oh, we got kind of worried once or twice about getting caught, but we never did. It worked out real well. We, the only problem was that we could never get away from her

family and from my family and school for long enough to have all we wanted, you know . . .

I 17: (Laughter.)

C 17: Well, sometimes, looking back at this now, it's just a miracle that she didn't get pregnant because, well, sometimes we took precautions and sometimes we didn't and I've thought about it a lot and it's just a miracle but I guess maybe we were both so young at the time or something.

I 18: Is this your wife you're talking about?

C 18: Oh, no, no. This was my first real sexual experience with a girl. You know, I used to masturbate some in high school and I, I felt real guilty about it. I didn't get married until after I was out of high school--matter of fact, right after I got out of high school, I was drafted, well, I was going to be drafted so I figured I might as well join so I spent two years in the Army.

I 19: How was that? What did you do in the Army?

C 19: (Laughter.) Nothing, by and large, really nothing. It was a sheer waste of time on my part. I didn't get a thing out of it at all. I doubt that the military got anything out of me either. It really, it was an unrewarding experience for both of us I suppose. You know, I don't like anybody always telling me what to do. I like to live my own life and do what I want to do when I want to do it and you just can't have that in the military service you know. I didn't like some sergeant telling me to go dig a ditch or shine your shoes or clean your rifle or something like that.

APPENDIX B. BIAS QUESTIONNAIRE

A great deal has been written in recent years concerning the training of clinical psychologists. We also are interested in studying this issue. We should like your opinion, therefore, on each of the questions below.

1. Should clinical training occur at the (a) pre-doctoral level or (b) post-doctoral level? If post-doctoral, how long should this training be? _____
2. Should clinicians be granted the (a) Ph.D. or (b) Doctor of Psychology degree?
3. Is the "art" of psychotherapy incompatible with the science of psychology?
4. Would you favor separate training and/or schools for clinical and research psychologists? (a) yes (b) no
5. Should clinical training include an extensive familiarity with the physiological sciences? (a) yes (b) no
6. Should clinical training include a thorough grounding in research methods? (a) yes (b) no
7. Should clinical training include some background in clinical medicine especially as applies to psychosomatic disorders? (a) yes (b) no
8. Do you believe that all states should have licensure or certification acts to control the practice of psychotherapy? (a) yes (b) no
9. Should all states have reciprocal recognition of certification acts to control the practice of psychotherapy? (a) yes (b) no
10. Do you believe that psychotherapy can be effective in facilitating change in personal characteristics of behavior? (a) yes (b) no
11. Have you ever wanted or sought training in psychotherapy for yourself? (a) yes (b) no
12. Do you feel that you ever make professional judgments based upon a personal bias? (a) yes (b) no
13. What is the place of the use of electroconvulsive therapy in the treatment of a neurotic? (1) frequently (2) occasionally (3) never In the treatment of a

psychotic? (1) frequently (2) occasionally (3) never
Are you currently treating anyone with electroconvul-
sivetherapy? (a) yes (b) no

14. What percentage of your time is spent in each of the following activities:
clinical practice _____
research _____
teaching (specify areas) _____
other (specify) _____
15. List your three strongest professional interests in order. (1) _____ (2) _____ (3) _____
16. State the approximate number of your own published articles having to do with the subject of psychotherapy. _____

APPENDIX C. RAW DATA BY GROUPS

RAW SCORE FOR EACH SUBJECT ON EACH DIMENSION*

		Group 1 Psychiatrists																		
<u>Ss</u> \ <u>D</u>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1	N	I	D	N	I	N	I	N	D	I	I	D	N	I	I	D	I	N	
2		N	N	D	I	I	N	I	N	N	I	I	D	N	I	I	D	I	N	
3		I	I	D	I	I	I	I	I	D	I	I	D	I	I	I	D	I	D	
4		I	I	D	I	I	I	I	I	D	I	I	D	I	I	I	D	I	D	
5		I	I	D		I		I	I	D	I	I	D	I	I	I	D	I	D	
6		N	I	D	I	I	I	I	I	D	I	I	D	I	I	I	D	I	D	
7		N	N	N	N	N	N	N	N	N		N	N	N	N	N	N	N	N	
8		I	I	D	I	I	I	I	I		I	I	D	I	I	I	D	I	D	
9		I	I	D	I	I	I	I	I	D	I	I	D	I	I	I	D	I	D	
10		N	N	D	N	N	N	I	N	N	I	N	N	I	N	I	D	N	N	
11		N	I	D	I	I	I	I	I	N	I	I	D	I	I	I	D	I	D	
12		N	I	D	I	I	N	I	I	D	I	I	D	I	I	I	D	I	D	
13		I	N	I	N	I	I	I	I	N	N	N	D	I	N	I	D	I	N	
14		I	I	D	I	I	I	I	D	D	I	I	D	I	I	I	D	I	D	
15		N	I	D	N	I	N	N	I	N	I	I	N	I	I	I	D	I	D	
16		I	I	D	I	I	I	I	I	D	I	I	N	I	I	I	D	I	D	
17		N	I	D	I	I	N	I	N	D	I	I	D	I	I	I	D	I	D	
18		N	I	D	N	I	I	I	I	N	I	I	D	I	I	I	D	I	N	
19		N	I	D	N	I	N	I	I	D	N	I	D	I	I	I	D	I	D	
20		D	N	D	N	N	I	D	N	D	D	I	D	I	I	I	D	I	D	
21		N	N	D	N	I	I	N	N	D	I	I	D	I	I	I	D	I	D	
22		I	I	D	N	I	I	I	I	N	I	I	D	I	I	I	D	I	D	
23		N	N	I	N	N	N	N	I	N	N	N	D	I	N	N	D	N	N	

*I = Increased; N = No Change; D = Decreased.

RAW SCORE FOR EACH SUBJECT ON EACH DIMENSION*

Group 2
Pro-Therapy Psychologists

<u>Ss</u> \ D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	I	I	I	D	I	I	I	I	I	D	I	I	D	I	I	I	D	I	D
2	I	I	I	D	I	I	I	I	I	D	I	I	D	I	I	I	D	I	D
3	I	I	I	D	I	I	I	I	I	D	I	I	D	I	I	I	D	I	D
4	N	I	I	D	I	I	I	I	I	N	I	I	D	I	I	I	D	I	D
5	I	I	I	D	N	I	I	I	I	N	I	I	D	I	I	I	D	I	D
6	I	I	I	D	I	I	I	I	I	N	I	I	D	I	I	I	D	I	D
7	I	I	I	D	I	I	I	I	I	D	I	I	D	I	I	I	D	I	D
8	N	I	N	D	I	I	I	I	I	I	I	I	D	I	I	D	D	I	D
9	I	I	I	D	I	I	I	I	N	D	I	I	D	I	I	I	D	I	D
10	N	I	I	D	N	I	N	I	I	N	I	I	D	I	I	I	D	I	D
11	N	I	I	D	I	I	I	I	I	D	I	I	N	I	I	I	N	I	D
12	N	I	I	D	I	I	I	I	N	N	I	I	D	I	I	I	D	I	D
13	N	N	I	D	N	N	N	N	I	N	I	I	D	I	I	I	D	N	N
14	N	N	I	D	N	I	N	I	I	N	I	I	D	I	I	I	D	I	D
15	I	I	N	D	I	I	I	N	D	I	I	I	D	I	N	I	D	I	N
16	N	I	I	D	I	I	I	I	N	D	I	I	D	I	I	I	D	I	D
17	N	N	I	D	I	I	I	I	I	D	I	N	D	I	I	I	D	I	D

*I = Increased; N = No Change; D = Decreased.

RAW SCORE FOR EACH SUBJECT ON EACH DIMENSION*

Group 3
Anti-Therapy Psychologists

Ss \ D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	N	I	I	D	I	N	N	I	N	D	I	I	D	I	I	I	D	D	D
2	N	N	N	N	N	N	I	N	N	N	N	N	N	I	N	N	N	N	N
3	N	I	N	D	I	N	I	I	I	D	I	N	D	I	I	I	D	N	D
4	I	I	I	D	I	I	I	I	I	D	I	I	D	I	I	I	D	I	D
5	I	I	I	D	I	I	I	I	I	N	I	I	D	I	I	N	D	I	D
6	N	I	N	D	N	N	N	I	I	N	I	I	D	I	I	N	D	I	N
7	N	I	I	N	I	N	N	I	N	N	N	N	N	I	N	I	D	I	N
8	I	N	I	D	N	N	I	N	I	D	N	N	D	I	N	N	D	N	N
9	N	N	N	D	N	N	N	N	N	N	N	N	D	I	N	N	D	N	N
10	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
11	N	I	I	D	I	I	I	I	N	D	I	I	D	I	I	N	D	I	N
12	I	I	I	N	I	I	I	I	I	D	I	I	D	I	I	I	N	I	N
13	N	I	I	N	N	I	N	I	I	D	N	I	N	I	I	N	D	N	N
14	N	N	D	N	N	N	N	N	D	N	N	N	N	N	N	N	N	N	N
15	I	I	I	D	I	I	I	I	I	N	I	I	D	I	I	I	D	I	D
16	I	N	I	D	I	I	I	I	I	D	I	N	D	I	I	I	D	I	D
17	I	I	I	D	I	I	I	I	I	D	I	I	D	I	I	I	D	I	D
18	N	I	I	D	I	I	I	I	N	N	I	N	N	I	I	I	D	I	D

*I = Increased; N = No Change; D = Decreased.

APPENDIX D. SUBJECTS' EVALUATION ON EACH
DIMENSION BY GROUP

Subjects' Evaluations on Each Dimension by Group

Dimension*	Group 1 n = 23			Group 2 n = 17			Group 3 n = 18		
	Incr.	No C.	Decr.	Incr.	No C.	Decr.	Incr.	No C.	Decr.
1.	10	12	1	8	9		7	11	
2.	15	8		14	3		12	6	
3.	19	4		15	2		12	5	1
4.		3	20			17		6	12
5.	12	10		13	4		11	7	
6.	19	4		16	1		9	9	
7.	13	9		14	3		10	8	
8.	18	4	1	15	2		13	5	
9.	15	7	1	13	3	1	10	7	1
10.		9	13	2	7	8		9	9
11.	18	3	1	17			11	7	
12.	19	4		16	1		9	9	
13.		4	19		1	16		6	12
14.	20	3		17			16	2	
15.	19	4		16	1		12	6	
16.	21	2		16		1	9	9	
17.		1	22		1	16		4	14
18.	20	3		16	1		10	7	1
19.		7	16	1	2	13		10	8
20.**	19	1		15	2		13	5	

*See Figure 1 for definition of dimensions.

**Three Ss in Group 1 did not answer this item.